

CLAIMS

1. An I/O expansion system comprising:
 - a female connector (10; 100) for operative connection to a baseboard,
5 and
 - an add-in card (40) having a male connector (44) on a first edge for receipt by the female connector (10; 100) and a notch (48) for receipt of a retention formation (28; 108) of the female connector (10; 100),
wherein it further includes a carriage part (20; 102) movable along the length of
10 the female connector (10; 100) and providing support for the retention formation (28; 108).
 2. An I/O expansion system according to claim 1 wherein it further includes on a surface of the carriage part (20; 102) adjacent the female connector a locking formation (22; 106), and on an outer surface of the female connector a plurality of co-operating locking formations (18) spaced apart along the length of the female connector (10; 100), such that the carriage part (20; 102) is lockable with respect to the female connector (10; 100) at a plurality of positions along its length, and wherein the carriage part (20; 102)
15 includes a recess (30) in its upper surface (20a; 102a) into which in use an edge of the add-in card (40) is received.
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 3. An I/O expansion system according to claim 2 wherein the locking formation (22; 106) on the carriage part (20; 102) is a protrusion, and the locking formations (18) on the female connector (10; 100) are recesses.
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 4. An I/O expansion system according to any one of claims 1 to 3 wherein the retention formation (28) is pivotable between an operative position in which

the retention formation (28) is within the notch (48) on the add-in card and acts to retain the add-in card in the female connector and an inoperative position in which the retention formation (28) is free of the notch (48) on the add-in card (40) and the add-in card (40) can be removed from the female connector (10; 5 100), and wherein it further includes an arm (26) connected with the retention formation (28) for pivoting of the retention formation (28) between the operative and inoperative positions.

5. An I/O expansion system according to any one of claim 4 wherein the
10 retention formation (28) is hook shaped.

6. An I/O expansion system according to any one of claims 1 to 3 wherein
the carriage part (102) includes an upwardly extending arm (104) and the
15 retention formation (108) is an inwardly extending protrusion from the
upwardly extending arm (104), and wherein the upwardly extending arm (104)
is resiliently deformable and the retention formation (108) has a cam surface
(109) on its upper side such that when the add-in card (40) is inserted into the
female connector (100) the upwardly extending arm (104) bends outwardly to
permit the retention formation (108) to ride over a leading edge of the notch
20 (48) and then into the notch (48) to retain the add-in card (40) in the female
connector (100).

7. An I/O expansion system according to any one of claims 2 to 6 wherein
the female connector (100) includes a housing (11) which supports a plurality
25 of electrical contacts (14), and the co-operating locking formations (18) spaced
apart along the length of the female connector (100) are provided on an outer
surface of the housing (11) and wherein the carriage part (102) is substantially
“U” shaped.

8. An I/O expansion system according to any one of claims 2 to 6 wherein
the female connector (10) includes a housing (11) which supports a plurality of
electrical contacts (14), and a cover (16) which increases the width of the
5 female connector (10) towards its upper surface, and the co-operating locking
formations (18) spaced apart along the length of the female connector (10) are
provided on an outer surface of the cover (16), and wherein the carriage part
(20) is substantially "C" shaped, and is retained on the female connector by
engaging beneath the cover (16).

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9. A female connector for an I/O expansion system according to anyone of
the preceding claims.

10. A female connector (10; 100) specifically adapted for both operative
15 connection to a baseboard and receipt of a male edge connector (44) of an add-
in card (40); wherein it includes a carriage part (20; 102) movable along the
length of the female connector (10; 100) and providing support for a retention
formation (28; 108) specifically adapted to engage in use with a formation (48)
on the add-in card (40) to retain the male edge connector (44) of the add-in card
20 (40) in the female connector (10; 100).